The following is a complete listing of the claims, and replaces all earlier versions and listings.

1.   (currently amended): A computer-implemented method of interconnection, through a gateway, between a first network of type IEEE 1394 enabling communications between a plurality of HAVi compliant devices and a second network enabling communications between a plurality of devices comprising the steps of:

for each device from the second network,

a) determining a distinct global unique identifier;

b) determining a distinct IEEE 1394 address; and

c) representing the device from the second network by a ~~HAVI~~ HAVi compliant software element associated with the determined global unique identifier and the determined IEEE 1394 address, which software element is hosted by the gateway; and

said method also comprising managing communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.

2. (previously presented): The method according to claim 1, wherein the second network enables communications between a plurality of UPnP compliant devices.

3. (previously presented): The method according to claim 2, wherein the step of determining a global unique identifier comprises the step of generating a global unique identifier.

4. (currently amended): The method according to claim 2, wherein the step of ~~detemiining~~ determining a IEEE ~~1394~~ 1394 address comprises a further step of generating a virtual IEEE 1394 address.

5. (previously presented): The method according to claim 4, wherein the step of generating a virtual IEEE 1394 address comprises a step of generating a bus identifier, representing the second network, according to the standard IEEE 1394.1.

6. (previously presented): The method according to claim 2, wherein the management of communication between devices from the first network and devices from the second network is performed by forming a bridge between a first bridge portal connected to the first network and an emulated second bridge portal and managing communication between the emulated second bridge portal and the devices from the second network.

7. (previously presented): The method according to claim 1, wherein the second network enables communications between a plurality of HAVi compliant devices.

8. (previously presented): The method according to claim 7, wherein the step of determining a global unique identifier comprises the step of retrieving the global unique identifier of the corresponding HAVi device from the second network.

9. (currently amended): The method according to claim 7, wherein the step of determining a IEEE1394 address comprises the step of retrieving the IEEEI394 address of the corresponding ~~HA Vi~~ HAVi device from the second network.

10. (previously presented): The method according to claim 7, wherein the management of communication between devices from the first network and devices from the second network comprises forming a bridge compliant with the IEEE1394.1 standard between a first bridge portal connected to the first network and a second bridge portal connected to the second network.

11. (previously presented): The method according to claim 1, wherein management of communication between a first device from the first network and a second device from the second network includes retrieving, by the first device, the IEEE 1394 address associated to the second device using a discovery and enumeration protocol.

12. (previously presented): The method according to claim 1, which further comprises managing virtual registers compliant with IEC61883 specification associated with each device from the second network.

13. (previously presented): A computer-implemented method of interconnection, through a gateway, between a first serial bus network enabling transmission of audiovisual data enabling communications between a plurality of devices, compliant with a first standard of interoperability between devices connected to a serial bus network adapted for audiovisual data transmission, and a second network enabling communications between a plurality of devices comprising the steps of:

for each device of the second network,

a) determining a distinct global unique identifier;

b) determining a distinct address compliant with the first serial bus network; and

c) representing the device from the second network by a software element associated with the determined global unique identifier and address, providing an interface for controlling functions of the device, in conformity with the first standard of interoperability, the software element being hosted by the gateway; and

the method also comprising managing communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.

14. (currently amended): A computer-implemented gateway enabling the interconnection of a first network of type IEEE 1394 enabling communications between a plurality of ~~HA Vi~~ HAVi compliant devices and a second network enabling communications between a plurality of devices, wherein the gateway comprises:

a unit to determine a distinct global unique identifier for each device from the second network;

a unit to determine a distinct IEEE 1394 address for each device from the second network;

a unit to represent each device from the second network by a HAVi compliant software element associated with the device's determined global unique identifier and IEEE 1394 address, and to host the software element on the gateway; and

a unit to manage communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.

15. (previously presented): The gateway according to claim 14, wherein the second network enables communications between a plurality of UPnP compliant devices.

16. (previously presented): The gateway according to claim 15, wherein the unit to determine a global unique identifier comprise a unit to generate a global unique identifier.

17. (previously presented): The gateway according to claim 15, wherein the unit to determine a IEEE 1394 address for each device from the second network comprises a unit for generating a virtual IEEE 1394 address.

18. (previously presented):   The gateway according to claim 17, wherein the unit for generating a virtual IEEE 1394 address comprises a unit for generateing a bus identifier, representing the second network, according to the standard IEEE 1394.1.

19. (previously presented): The gateway according to claim 15, wherein the unit to manage communication between a devices from the first network and a devices from the second network comprises a unit to form a bridge between a first bridge portal connected to the first network and an emulated second bridge portal, and a unit to manage communication between the emulated second bridge portal and the devices from the second network.

20. (previously presented):   The gateway according to claim 14, wherein the second network enables communications between a plurality of HAVi compliant devices.

21. (previously presented):   The gateway according to claim 20, wherein the unit to determine a global unique identifier comprises a unit to retrieve the global unique identifier of the corresponding HA VI device from the second network.

22. (previously presented):   The gateway according to claim 20, wherein the unit to determine a IEEE 1394 address comprises a unit to retrieve the IEEE1394 address of the corresponding HAVi device from the second network.

23. (previously presented): The gateway according to claim 20, wherein the unit to manage communication between devices from the first network and devices from the second network comprise a unit to form a bridge compliant with the IEEE 1394.1 standard between a first bridge portal connected to the first network and a second bridge portal connected to the second network.

24. (previously presented): The gateway according to claim 14, wherein the unit to manage communication between a first device from the first network and a second device from the second network comprises, in the first device, a unit to retrieve the IEEE 1394 address associated to the second device using a discovery and enumeration protocol.

25. (previously presented): The gateway according to claim 14, comprising a further unit to manage virtual registers compliant with IEC61883 specification associated with each device from the second network.

26. (currently amended): A computer-implemented gateway enabling the interconnection of a first serial bus network enabling transmission of audiovisual data enabling communications between a plurality of devices, compliant with a first standard of interoperability between devices connected to a serial bus network adapted for audiovisual data transmission, and a second network enabling communications between a plurality of devices, wherein the gateway comprises:

a unit to determine a distinct global unique identifier for each device from the second network;

a unit to determine a distinct address compliant with the first serial bus network for each device from the second network;

a unit to represent each device from the second network by a software element associated with the determined global unique identifier and IEEE 1394 address, providing an interface for controlling functions of the device, in conformity with the first standard of interoperability, and to host the software element on the gateway; and

a unit to manage communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.

27. (canceled).

28. (previously presented): A computer-implemented gateway enabling the interconnection of a first network of type IEEE 1394 enabling communications between a plurality of HAVi compliant devices and a second network enabling communications between a plurality of devices, wherein the gateway comprises:

means for determining a distinct global unique identifier for each device from the second network;

means for determining a distinct IEEE 1394 address for each device from the second network;

means for representing each device from the second network by a HAVi compliant software element associated with the device's determined global unique identifier and IEEE 1394 address, and for hosting the software element on the gateway; and

means for managing communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.

29. (previously presented): A computer-implemented gateway enabling the interconnection of a first serial bus network enabling transmission of audiovisual data enabling communications between a plurality of devices, compliant with a first standard of interoperability between devices connected to a serial bus network adapted for audiovisual data transmission, and a second network enabling communications between a plurality of devices, wherein the gateway comprises:

means for determining a distinct global unique identifier for each device from the second network;

means for determining a distinct address compliant with the first serial bus network for each device from the second network;

means for representing each device from the second network by a software element associated with the determined global unique identifier and IEEE 1394 address, providing an interface for controlling functions of the device, in conformity with the first standard of interoperability, and for hosting the software element on the gateway;

means for managing communication between a device from the first
network and a device from the second network using the device from the second network's
corresponding software element.

30. (currently amended): A computer-readable medium<u>, said medium not
being a signal, and said medium</u> storing a program product including code that, when
executed on a gateway, is operable to cause the gateway to perform a method of
interconnection between a first network of type IEEE 1394 enabling communications
between a plurality of HAVi compliant devices and a second network enabling
communications between a plurality of devices comprising:

for each device from the second network:

a) determining a distinct global unique identifier;

b) determining a distinct IEEE 1394 address; and

c) representing the device from the second network by a HAVI
compliant software element associated with the determined global unique identifier and the
determined IEEE1394 address, which software element is hosted by the gateway; and

the method also comprising managing communication between a device
from the first network and a device from the second network using the device from the
second network's corresponding software element.

31. (currently amended): A computer-readable medium<u>, said medium not
being a signal, and said medium</u> storing a program product including code that, when

executed on a gateway, is operable to cause the gateway to perform a method of interconnection between a first serial bus network enabling transmission of audiovisual data between a plurality of devices, compliant with a first standard of interoperability between devices connected to a serial bus network adapted for audiovisual data transmission, and a second network enabling communications between a plurality of devices comprising:

for each device of the second network:

a) determining a distinct global unique identifier;

b) determining a distinct address compliant with the first serial bus network; and

c) representing the device from the second network by a software element associated with the determined global unique identifier and address, providing an interface for controlling functions of the device, in conformity with the first standard of interoperability, the software element being hosted by the gateway; and

the method also comprising managing communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.